

**WHAT IS CLAIMED IS:**

1. A handheld electronic device comprising:  
a scrollwheel for providing input to the handheld electronic device;  
a dynamic feedback module connected to the scrollwheel for providing a plurality of types of feedback to a user of the handheld electronic device, each type of feedback associated with at least one of a plurality of feedback modes; and  
a software module for selecting a feedback mode from the plurality of feedback modes and activating the associated type of feedback provided by the dynamic feedback module.
2. The handheld electronic device of claim 1 wherein the software module selects the feedback mode based on feedback data associated with a data page on the handheld electronic device.
3. The handheld electronic device of claim 1 wherein the software module selects the feedback mode based on a set of predetermined criteria.
4. The handheld electronic device of claim 3 wherein the predetermined criteria are based on preferences selected by the user.
5. The handheld electronic device of claim 3 wherein the predetermined criteria are established in a software algorithm.
6. The handheld electronic device of claim 5 wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel.
7. The handheld device of claim 1 wherein the dynamic feedback module comprises means for resisting rotational motion of the scrollwheel.

8. The handheld device of claim 7 wherein the means for resisting rotational motion of the scrollwheel comprises an electromagnetic motor.
9. The handheld device of claim 7 wherein the means for resisting rotational motion of the scrollwheel comprises at least one mechanical clutch plate.
10. The handheld device of claim 1 wherein the dynamic feedback module comprises means for providing lateral motion of the scrollwheel.
11. The handheld device of claim 10 wherein the means for providing lateral motion of the scrollwheel comprises a cam mechanism.
12. The handheld device of claim 10 wherein the means for providing lateral motion of the scrollwheel comprises an electromechanical switch.
13. The handheld device of claim 1 further comprising a keyboard.
14. The handheld device of claim 1 further comprising a touchscreen.
15. A dynamic feedback system for use with a handheld electronic device, the dynamic feedback system comprising:
  - a scrollwheel for providing input to the handheld electronic device;
  - a dynamic feedback module connected to the scrollwheel for providing a plurality of types of feedback to a user of the handheld electronic device, each type of feedback associated with at least one of a plurality of feedback modes; and
  - a software module for selecting a feedback mode from the plurality of feedback modes and activating the associated type of feedback provided by the dynamic feedback module.

16. The dynamic feedback system of claim 15 wherein the software module selects the feedback mode based on feedback data associated with a data page on the handheld electronic device.
17. The dynamic feedback system of claim 15 wherein the software module selects the feedback mode based on a set of predetermined criteria.
18. The dynamic feedback system of claim 17 wherein the predetermined criteria are based on preferences selected by the user.
19. The dynamic feedback system of claim 17 wherein the predetermined criteria are established in a software algorithm.
20. The dynamic feedback system of claim 19 wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel.
21. The dynamic feedback system of claim 15 wherein the dynamic feedback module comprises means for resisting rotational motion of the scrollwheel.
22. The dynamic feedback system of claim 21 wherein the means for resisting rotational motion of the scrollwheel comprises an electromagnetic motor.
23. The dynamic feedback system of claim 21 wherein the means for resisting rotational motion of the scrollwheel comprises at least one mechanical clutch plate.
24. The dynamic feedback system of claim 15 wherein the dynamic feedback module comprises means for providing lateral motion of the scrollwheel.
25. The dynamic feedback system of claim 24 wherein the means for providing lateral motion of the scrollwheel comprises a cam mechanism.

26. The dynamic feedback system of claim 24 wherein the means for providing lateral motion of the scrollwheel comprises an electromechanical switch.
27. A method for providing feedback on a handheld electronic device having a scrollwheel, the method comprising the steps of:
- providing a user initiated input to the handheld electronic device through the scrollwheel;
- analysing data associated with the user initiated input;
- deciding if a feedback response is required; and
- if a feedback response is required, initiating an appropriate feedback mode.
28. The method of claim 27 wherein the decision to initiate a feedback response is based on a feedback trigger associated with a particular data page.
29. The method of claim 28 wherein the feedback mode is determined based on the feedback trigger associated with a particular data.
30. The method of claim 29 wherein the feedback mode is based on a set of predetermined criteria.
31. The method of claim 30 wherein the predetermined criteria are based on preferences selected by the user.
32. The method of claim 30 wherein the predetermined criteria are established in a software algorithm.
33. The method of claim 32 wherein the predetermined criteria are based on a position of a cursor controlled by the scrollwheel.

34. The method of claim 27 wherein the feedback mode is associated with a type of feedback.
35. The method of claim 34 wherein the type of feedback comprises a lateral movement of the scrollwheel.
36. The method of claim 35 wherein the lateral movement of the scrollwheel is in a positive direction.
37. The method of claim 35 wherein the lateral movement of the scrollwheel is in a negative direction.
38. The method of claim 34 wherein the type of feedback comprises a resistance to rotational movement of the scrollwheel.
39. The method of claim 38 wherein the resistance to rotational movement of the scrollwheel is absolute, and the scrollwheel cannot rotate.